

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

10/506819

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
12 September 2003 (12.09.2003)

PCT

(10) International Publication Number
WO 03/074091 A2(51) International Patent Classification⁷: A61K 49/00

(21) International Application Number: PCT/EP03/02358

(22) International Filing Date: 7 March 2003 (07.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
109794/2002 7 March 2002 (07.03.2002) JP

(71) Applicants (for all designated States except US): FUJI PHOTO FILM CO., LTD. [JP/JP]; 210, Nakanuma, Minami-ashigara-shi, Kanagawa, Kanagawa 250-0193 (JP). SCHERING AKTIENGESELLSCHAFT [DE/DE]; Müllerstrasse 178, 13353 Berlin (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KAWAKAMI, Masayuki [JP/JP]; c/o FUJI PHOTO FILM CO., LTD., 210, Nakanuma, Minami-ashigara-shi, Kanagawa, Kanagawa 250-0193 (JP). KITAGUCHI, Hiroshi [JP/JP]; FUJI PHOTO FILM CO., LTD., 210, Nakanuma, Minami-ashigara-shi, Kanagawa, Kanagawa 250-0193 (JP). LICHA, Kai [DE/DE]; Bornimer Strasse 17a, 14612 Falkensee (DE). PERLITZ, Christin [DE/DE]; Ackerstrasse 40, 10155 Berlin (DE). EGUCHI, Hiroaki [JP/JP]; 1-72, Seiwadai-nishi 2-chome, Kawanishi-shi, Hyogo, Hyogo 666-0143 (JP). TSUDA, Natsuko [JP/JP]; 5-11,

Natsugicho, Nishinomiya-shi, Hyogo, Hyogo 662-0024 (JP). AIKAWA, Kazuhiro [JP/JP]; c/o FUJI PHOTO FILM CO., LTD., 210, Nakanuma, Minami-ashigara-shi, Kanagawa, Kanagawa 250-0193 (JP).

(74) Agents: DR. BEST, Michael et al.; LEDERER & KELLER, Prinzregentenstrasse 16, 80538 Munich (DE).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NEAR INFRARED FLUORESCENT CONTRAST AGENT AND METHOD FOR FLUORESCENCE IMAGING

(57) Abstract: A near infrared fluorescent contrast agent which is excellent in permeability in a living tissue and enables specific imaging of tumor and/or blood vessel, comprising a compound represented by formula (I) or a pharmaceutically acceptable salt thereof, wherein R¹, R², R⁷, and R⁸ represent a C₁-C₁₀-alkyl group or the like; R³, R⁴, R⁵, R⁶, R⁹, R¹⁰, R¹¹, and R¹² represent a hydrogen atom, a C₁-C₆ alkyl group, an aryl group or the like; X¹ and X² represent a C₁-C₁₅ alkyl group or an aryl group and X¹ and X² in total have 0 to 4 carboxyl groups; m¹, m², and m³ represents 0 or 1; L¹ to L⁷ independently represent a methine group; Mⁿ represents a hydrogen atom, a metal, or a quaternary ammonium salt; and n represents an integer of 1 to 7 necessary for neutralizing charge.

WO 03/074091 A2